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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,114	09/20/2001	Donald V. Perino	RB1-035USC3	4507

29150 7590 08/05/2003

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EXAMINER

FIGUEROA, FELIX O

ART UNIT	PAPER NUMBER
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2833

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/961,114

Applicant(s)

PERINO ET AL.

Examiner

Felix O. Figueroa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 70-75, 77, 80-83, 85, 86 and 89-97 is/are pending in the application.
- 4a) Of the above claim(s) 89 and 90 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 70-75, 77, 80-83, 85, 86 and 91-96 is/are rejected.
- 7) ☒ Claim(s) 97 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 10 June 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/10/03 has been entered.

Claim Objections

Claim 97 is objected to as being in improper form because it depends on claim 68, which has been canceled. Accordingly, the claim 97 will not be further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 96 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 96 recites that the clip and the packaging material are "separated from each other". However, this contradicts claim 91, from which claim 96 depends, which recites that the clip "extends from the packaging material". Furthermore, it is noted that in order to function, the clip and the packaging material cannot be separate from each

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other. Accordingly, it is assumed that applicant intended to recite that there is space between the chip and the clip.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 91, 95, 96; 77, 80-83, 85, 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellomo in view of Taniguchi et al. (US 5,451,815).

Bellomo discloses a chip package comprising: a packaging material (Fig.5) having a first side; a lead (34) extending from a first side of the packaging material. Bellomo discloses substantially the claimed invention except for the flexible lead. Taniguchi teaches the use of compressible flexible leads (14, Fig.3) to enable a flexible mounting (col.3 lines 62-64). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the chip package of Bellomo with flexible leads, as taught by Taniguchi, to enable a flexible mounting.

Regarding claim 95, Bellomo shows the clip being integral with the packaging material.

Regarding claim 96, Bellomo shows the packaging material and the clip being "separate from each other".

Regarding claim 77, Bellomo discloses substantially the claimed invention except for the use of support pins. Taniguchi teaches a chip package (10) having support pins

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(12a-d) extending from the packaging material to provide vertical support the package. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to for the chip package of Bellomo having support pins extending from the packaging material, as taught by Taniguchi, to provide vertical support the package.

Regarding claim 80, Bellomo discloses substantially the claimed invention except for the specific material of the lead. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use beryllium-cooper as the preferred material in order to provide good conductivity, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 81-83, Bellomo discloses substantially the claimed invention except for the material of the packaging material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a flexible material, e.g. silicon rubber, as the preferred material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claim 85, Bellomo discloses an integrated circuit (38) disposed in the package material.

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Regarding claim 86, Bellomo discloses the first and second clip portion being flexible.

Claims 70-75 and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellomo and Taniguchi as discussed above and further in view of Cutchaw (US 4,293,175).

Bellomo, as modified, discloses substantially the claimed invention except for the flexible insert. Cutchaw teaches the use of a flexible insert (110) interposed between the lead (98a) and the first side of the packaging material (92a) to provide a flexible and aligned contact with the mating element. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the package of Bellomo, as modified, with a flexible insert interposed between the leads and the first side of the packaging material, as taught by Cutchaw, to provide a flexible and aligned contact with the mating element.

Regarding claim 71, Bellomo, as modified by Cutchaw, discloses substantially the claimed invention except for cylindrical shape. However, it would have been an obvious choice one having ordinary skill in the art to form the insert having a different shape, e.g. being cylindrical, since applicant has not disclosed that such shape solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with insert of Cutchaw.

Regarding claims 72 and 73, Cutchaw discloses the insert being of a compliant material, specifically an elastomer.

Regarding claims 74-75, Cutchaw discloses the lead having a substantially C-shape; and being compressible.

Claims 93 and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellomo, Taniguchi and Cutchaw as discussed above and further in view of Sonobe (US 4,636,022).

Bellomo, as modified, discloses substantially the claimed invention except for the indentation. Sonobe teaches the use of a package (10) having an indentation (see Fig.5), an end of the lead being disposed within the pocket when the lead is compressed, to protect the lead from external tampering. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the package of Bellomo having an indentation, as taught by Sonobe, to protect the lead from external tampering.

Response to Arguments

Applicant's arguments with respect to claim 91 have been considered but are moot in view of the new grounds of rejection.

In response to applicant's argument (regarding claims 70-75) that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case,

Cutchaw teaches a flexible insert (110) interposed between the lead (98a) and the first side of the packaging material (92a) to provide a flexible uniform contact with the mating element. It is further noted that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's argument, regarding claim 80, that there is no suggestion to use beryllium-copper, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the use of beryllium-copper contacts is known in the art to provide good electric conductivity (see for example US 5,540,593 and US 5,730,620).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (703) 308-0097. The examiner can normally be reached on Mon.-Fri., 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (703) 308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

ffr
July 30, 2003


RENEE LUEBKE
PRIMARY EXAMINER